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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,767	09/14/2001	Ruediger Musch	Mo-6587 LeA 34,663	8537

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PATENT DEPARTMENT
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EXAMINER

LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 08/21/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/954,767

Applicant(s)

MUSCH ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 4 is objected to because of the following informalities: Change “resin” to “adhesive resin” for clarity and to avoid lack of antecedent basis in the claim.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites use of an “adhesive resin,” of which there are hundreds, if not thousands. The scope of the claim remains indefinite without further qualification of the claim.

4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites “all amounts are based on 100 parts by weight of the monomers.” The Applicant is reminded that there are *two* monomers. It appears that all amounts are based on 100 parts by weight of chloroprene, especially since the claim recites use of 2-20 parts by weight of 2,3-dichlorobutadiene. The alternate interpretation is that 1-20 parts by weight of diterpene carboxylic acid is based on 100 parts by weight of both monomers. In sum, the claim needs to be revised to avoid ambiguity.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent

No. 5,298,580 to Wendling *et al.*

x no adhesive resin

Wendling *et al.* teaches a composition comprising a polychloroprene dispersion containing a tricyclic diterpenecarboxylic acid having at least two conjugated C=C bonds per molecule (see entire text and claims). Examples of the latter are listed as: abietic acid, palustric acid, pimaric acid, neoabietic acid, and isopimaric acid (see table, col. 3). Example 1 illustrates a process in which chloroprene is emulsion polymerized with 5 % by weight of 2,3-dichlorobutadiene in the presence of 2 % of unmodified resin acid based on tall oil.

7. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent

No. 3,872,043 to Branlard *et al.*

The prior art of Branlard *et al.* discloses a process for chloroprene polymerization in the presence of an emulsifying system comprising 1.8-3 % by weight of resinic acid (col. 3, lines 39-42). Resinic acid describes an acid from natural acidic resins which contain abietic acid (col. 2, line 65). An adhesive composition is prepared using 100 parts (by weight) of the resulting polychloroprene rubber, 5 parts of ZnO, 8 parts MgO, and 40 parts of phenolic resin.

x no common

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

~~10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,872,043 to Branlard *et al.*~~

The discussion of the disclosures of the prior art of Branlard *et al.* from paragraph 7 of this office action is incorporated here by reference. In sum, the adhesive composition is essentially the same as that claimed in the present application. Based on this observation, there is sufficient reason to believe that the prior art adhesive would also exhibit the claimed open time of 4-15 days. Since the PTO can not perform experiments, the burden is shifted to the Applicants to provide evidence to the contrary and to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

11. Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,926,880 to Esser *et al.* in view of Wendling *et al.*

Esser *et al.* discloses preparation of chloroprene polymer latices containing up to 20 % of 2,3-dichlorobutadiene by emulsion polymerization using disproportioned abietic acid or abietic acid derivatives as the emulsifier (claim 1 and col. 2, lines 18-26). The reference does not teach use of unmodified resin acids.

Wendling *et al.* shows that use of tricyclic diterpenecarboxylic acids are useful in forming polychloroprene dispersion of chloroprene and 2,3-dichlorobutadiene with the advantages of minimal tendency to foul molds and minimal wastewater pollution. With respect to the parent claim, one having ordinary skill in the art, having read both references, would have found it obvious to use the resin acids of Wendling *et al.* in the dispersion of Esser *et al.* in order to minimize problems associated with pollution. Since the resin acids of Wendling *et al.* are functionally equivalent to known conventional emulsion stabilizers, one having skill in the art would have expected such a substitution to work.

Regarding claim 2, use of metal oxide for curing and additional adhesive resins for improving tack is well established in the art. For example, Esser *et al.* teaches use of about 7 parts by weight of ZnO and 5-30 % by weight of a synthetic terpene-phenol resin (claim 3 and Example III D). One having skill in the art would have found it obvious to use these materials in these amounts since they are adequately disclosed in the prior art. With respect to claim 4, Esser *et al.* is silent with regard to the softening point of the terpene-phenol resin. In view of the fact that the reference describes essentially the same material of the present claim, sufficient reason

exists to believe that the terpene-phenol resin of Esser *et al.* also possesses the claimed softening point. Since the PTO does not perform experiments, the burden is shifted to the Applicants to provide evidence to the contrary. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Both references teach preparation of chloroprene dispersions containing 2,3-dichlorobutadiene. Esser *et al.* teaches use of up to 20 % of the comonomer, thus, it would have been obvious to use 2,3-dichlorobutadiene in the same range shown in the prior art. Thus, one having skill in the art would have found it obvious from the combined teachings of the prior art to arrive at the process recited in claim 5.

Finally, claim 6, drawn to an adhesive, is obvious to one skilled in the art since the prior art relates to polychloroprene-based adhesives. That is, one would find it obvious to use the compositions for a contact adhesive.

12. The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure. The following references relate to polychloroprene adhesives and resin acids.

U.S. Patent No. 3,595,821 to Spector *et al.*

U.S. Patent No. 3,880,788 to Rudolphy

U.S. Patent No. 3,965,061 to Bash *et al.*

U.S. Patent No. 4,477,613 to Evans *et al.*

U.S. Patent No. 4,405,742 to Musch *et al.*

U.S. Patent No. 5,332,771 to Christell

U.S. Patent No. 5,527,846 to Christell *et al.*

U.S. Patent No. 5,667,858 to Pokorny

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.



DAVID W. WU
SUPERVISORY PATENT EXAMINER
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August 15, 2002